D. Corrective Action

U.S. Environmental Protection Agency
Office of Waste Programs Enforcement
Contract No. 68-W9-0006

TES 9

Technical Enforcement Support at Hazardous Waste Sites Zone III Regions 5,6, and 7

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PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

NATIONAL CASTINGS INCORPORATED
CICERO, ILLINOIS
ILD 049 015 134

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, DC 20460

Work Assignment No.	:	R05032
EPA Region	:	5
Site No.	:	ILD 049 015 134
Date Prepared	:	November 22, 1993
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EXECUTIVE SUMMARY

PRC Environmental Management, Inc. (PRC), performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMU) and other areas of concern (AOC) at the National Castings Incorporated (NCI) facility in Cicero, Cook County, Illinois. This summary highlights the results of the PA/VSI and the potential for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs identified.

The NCI facility is a steel casting foundry where scrap steel is melted and refined in electric arc furnaces and poured into sand moldings. NCI supplies castings primarily to railroad manufacturing industries. The facility generates and manages the following nonhazardous waste streams: baghouse dust, slag, waste firebrick, used sand, and used oil. In the past, the facility also generated hazardous baghouse dust (D006). NCI has operated as a foundry at its current location since 1902. The facility occupies 32 acres in an industrial and residential area and employs about 460 people.

Beginning in 1981, NCI was regulated as a generator, treatment, storage, or disposal (TSD) facility of hazardous waste. On July 25, 1985, EPA withdrew the treatment process listed on NCI's Part A permit application. On March 7, 1988, Illinois Environmental Protection Agency (IEPA) approved closure of NCI's Former Hazardous Waste Storage Areas (SWMU 1) and withdrew the facility's Part A permit application. The facility is currently a nonhandler of hazardous wastes.

The PA/VSI identified the following eight SWMUs and no AOCs at the facility:

Solid Waste Management Units

1. Former Hazardous Waste Storage Areas
2. Baghouse Dust Collectors 1 and 2
3. Baghouse Dust, Slag, and Waste Firebrick Storage Area
4. Used Sand Storage Area
5. Slag Accumulation Area
6. Shot Cleaning Accumulation Areas
7. Used Oil Storage Area
8. Former Incinerator

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No releases from the NCI facility have been documented. The potential for release from any SWMU to groundwater, surface water, air, or on-site soils is low. All active SWMUs manage nonhazardous waste. The Former Hazardous Waste Storage Areas (SWMU 1) managed hazardous baghouse dust (D006) in the past; however, this unit has been inactive since mid-1981 and was RCRA closed in 1988. All SWMUs are located on concrete.

The nearest residence to the NCI facility is located 1 block east. The facility is surrounded by a chain-link fence. A security guard is on-site 24 hours a day. Groundwater in the area is not used as a municipal water supply. There are currently no operating groundwater wells in the area of the NCI facility. The nearest surface water, the Des Plaines River, is located about 3 miles north of the facility and is used for recreational purposes. Sensitive environments are not located within 2 miles of the facility.

PRC recommends that no further action be taken for any of the SWMUs at the NCI facility at this time.

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1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), received Work Assignment No. R05032 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5.

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of prioritizing facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells
- Closed and abandoned units
- Recycling units, wastewater treatment units, and other units that EPA has usually exempted from standards applicable to hazardous waste management units
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading or unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release of hazardous waste or constituents to the environment has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where a strong possibility exists that such a release might occur in the future.

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility
- Obtain information on the operational history of the facility
- Obtain information on releases from any units at the facility
- Identify data gaps and other informational needs to be filled during the VSI

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA
- Identify releases not discovered during the PA
- Provide a specific description of the environmental setting
- Provide information on release pathways and the potential for releases to each medium
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases

The VSI includes interviewing appropriate facility staff; inspecting the entire facility to identify all SWMUs and AOCs; photographing all visible SWMUs; identifying evidence of releases; making a preliminary selection of potential sampling parameters and locations, if needed; and obtaining additional information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the National Castings Incorporated (NCI) facility (EPA Identification No. ILD 049 015 134) in Cicero, Cook County, Illinois. The PA was completed

on July 7, 1993. PRC gathered and reviewed information from the Illinois Environmental Protection Agency (IEPA), Illinois State Geological Survey (ISGS), U.S. Department of Agriculture,(USDA), U.S. Department of Commerce (USDC), U.S. Geological Survey (USGS), and from EPA Region 5 RCRA files. The VSI was conducted on July 8, 1993. It included interviews with facility representatives and a walk-through inspection of the facility. PRC identified eight SWMUs and no AOCs at the facility.

The VSI is summarized and 12 of the 20 inspection photographs taken are included in Appendix A. The photographs have been renumbered; thus, their numbers differ from the photograph numbers in the VSI field notes which are included in Appendix B.

2.0 FACILITY DESCRIPTION

This section describes the facility's location; past and present operations; waste generating processes and waste management practices; history of documented releases; regulatory history; environmental setting; and receptors.

2.1 FACILITY LOCATION

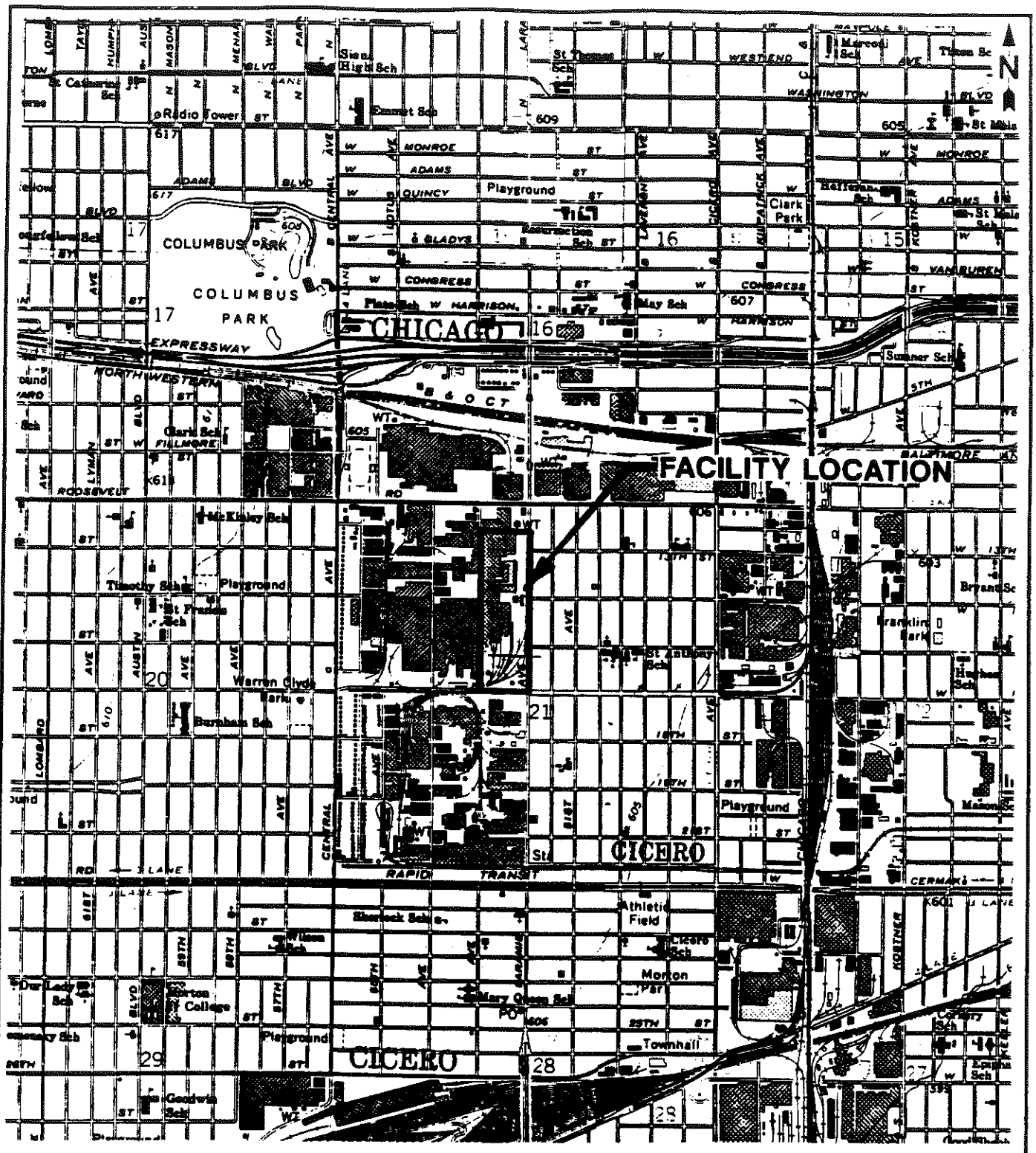
The NCI facility is located at 1400 South Laramie Avenue in Cicero, Cook County, Illinois. Figure 1 shows the location of the facility in relation to the surrounding topographic features (latitude 41° 51' 45" N and longitude 87° 45' 22" W) (NCI 1981b). The facility occupies 32 acres in an industrial residential area.

The facility is bordered on the north by the Cicero Water Department, on the east by Laramie Avenue, on the south by 16th Street, and on the west by Kropp Storage and a vacant General Electric Hot Point building.

2.2 FACILITY OPERATIONS

The NCI facility is a steel casting foundry where scrap steel is brought in by railroad cars, melted, and refined in four electric arc furnaces and poured into sand moldings. NCI supplies castings primarily to railroad manufacturing industries. The NCI facility has approximately 720,000 square feet of building space. NCI employs 460 people. Employees work three shifts, 5 days a week. The facility is surrounded by a chain-link fence. A security guard is on-site 24 hours a day.

NCI has operated the facility since July 1985. From 1966 to 1985, the facility operated as the National Castings Division of Midland Ross Corporation. From 1902 to 1966, the facility was operated by the National Malleable Castings Company. Since 1902, the facility has operated as a foundry which produces steel castings. No information on land use prior to 1902 was available during the PA/VSI.



SCALE 1:24000

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

SCALE: 1" = 2,000'

SOURCE: MODIFIED FROM USGS,
BERWYN, ILLINOIS, QUADRANGLE, 1960
RIVERFOREST, ILLINOIS, QUADRANGLE, 1978
ENGELWOOD, ILLINOIS, QUADRANGLE, 1960
CHICAGO LOOP, ILLINOIS, QUADRANGLE, 1978

QUADRANGLE LOCATION

NATIONAL CASTINGS INCORPORATED
CICERO, ILLINOIS

FIGURE 1

FACILITY LOCATION

PRC ENVIRONMENTAL MANAGEMENT, INC.

NCI-CICD.DWG - 09/20/93 - MLB 309-R0503ZL73

During normal operations, the NCI facility generates baghouse dust, slag, used sand, and waste firebrick. The baghouse dust was regulated as a D006 hazardous waste from 1981 to 1990. Starting in 1988, the NCI facility began producing primarily low-alloy castings for the railroad industry. The lower alloy scrap steel purchased for the production of these castings resulted in a lower level of cadmium in the baghouse dust. Since 1990, the baghouse dust has been disposed of as a special waste after sampling determined the amount of cadmium in the waste was below regulatory levels. NCI also produces small amounts of used oil which is transported off site.

The NCI facility rents an area measuring about 100- by 350-feet to Castings Reclamation Incorporated (CRI). According to NCI representatives, CRI repairs used railroad castings by grinding, chipping, and welding the used castings as required. According to NCI representatives, CRI produces no other wastes than general refuse and scrap steel. NCI uses any scrap metal resulting from CRI processes.

2.3 WASTE GENERATION AND MANAGEMENT

This section describes waste generation and management at the NCI facility. The facility's SWMUs are identified in Table 1. The facility layout, including SWMUs, is shown in Figure 2. The facility's waste streams are summarized in Table 2.

The NCI facility produces steel castings by melting scrap steel and pouring it into sand moldings. The scrap steel is melted in one of three electric arc furnaces on site. The process of pouring the castings produces a fine dust which is collected by Baghouse No. 1 located in the arc furnace area. Currently, NCI primarily produces low-alloy castings for the railroad industry. Prior to 1988, the facility produced more varied types of castings with higher alloy content. The higher alloy content of the scrap metal used to make castings generated a fine dust collected by Baghouse No. 1, which contained enough cadmium to be considered a D006 hazardous waste by EPA. From late 1966 to November 1980, the facility mixed this baghouse dust with nonhazardous waste for disposal (Midland Ross 1981).

Beginning in November 1980, EPA informed the NCI facility that it could no longer mix D006 waste with nonhazardous waste. The facility began storing D006 baghouse dust while searching for an appropriate disposal site. The D006 hazardous waste was stored in the Former Hazardous Waste

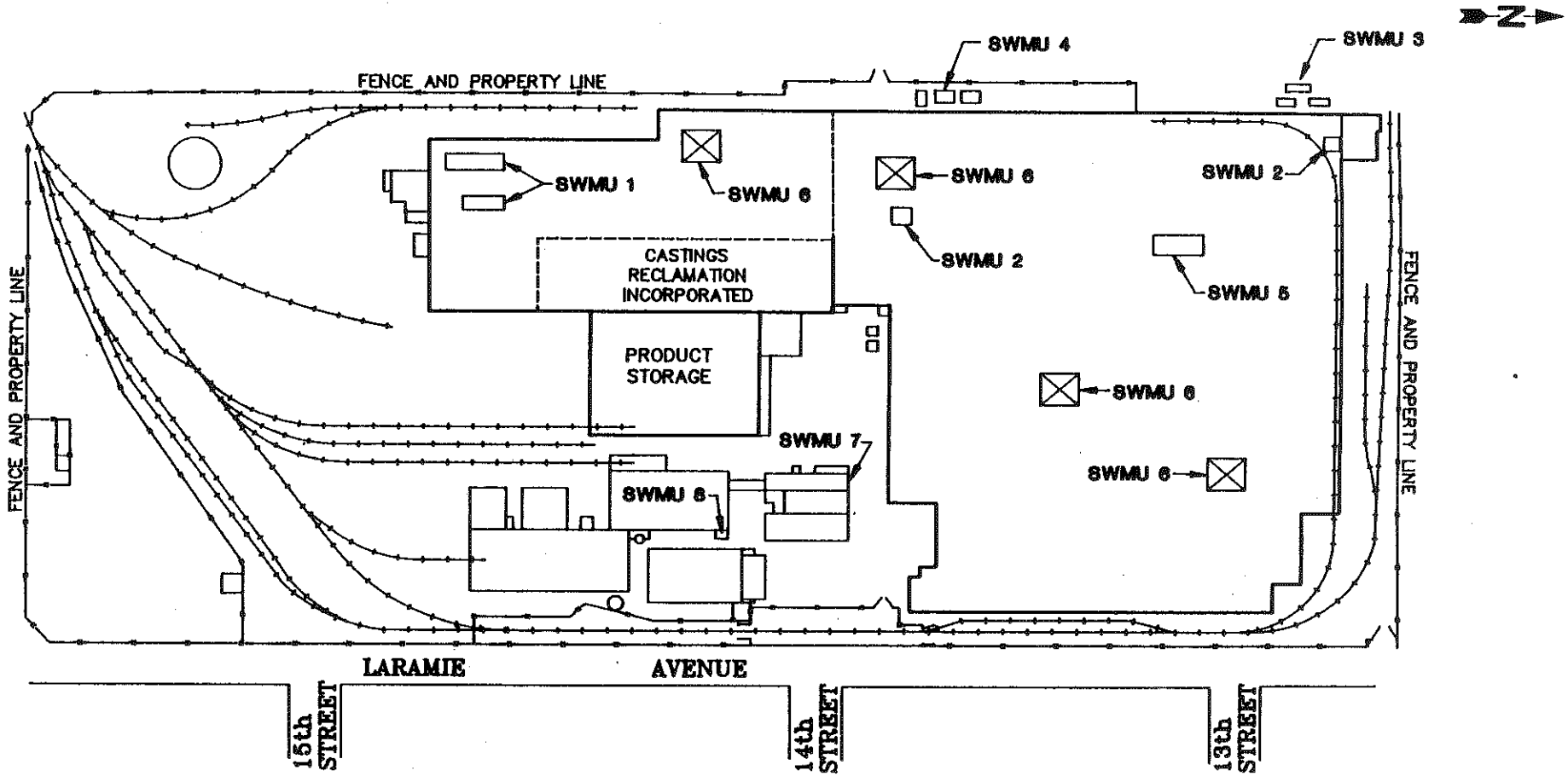
TABLE 1

SOLID WASTE MANAGEMENT UNITS

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit[a]	Status
1	Former Hazardous Waste Storage Areas	Yes	Inactive; RCRA closed in 1988
2	Baghouse Dust Collectors 1 and 2	No	Active; Collection of nonhazardous waste
3	Baghouse Dust, Slag, and Waste Firebrick Storage Area	No	Active; Storage of nonhazardous waste
4	Used Sand Storage Area	No	Active; Storage of nonhazardous waste
5	Slag Accumulation Area	No	Active; Accumulation of nonhazardous waste
6	Shot Cleaning Accumulation Areas	No	Active; Accumulation of nonhazardous waste
7	Used Oil Storage Area	No	Active; Storage of nonhazardous waste
8	Former Incinerator	No	Inactive since 1978

Note:

[a] A RCRA hazardous waste management unit is one that currently requires or formerly required submittal of a RCRA Part A or Part B permit application.



SOLID WASTE MANAGEMENT UNIT LEGEND

SWMU 1	FORMER HAZARDOUS WASTE STORAGE AREAS
SWMU 2	BAGHOUSE DUST COLLECTORS 1 AND 2
SWMU 3	BAGHOUSE DUST, SLAG, AND WASTE FIREBRICK STORAGE AREA
SWMU 4	USED SAND STORAGE AREA
SWMU 5	SLAG ACCUMULATION AREA
SWMU 6	SHOT CLEANING ACCUMULATION AREAS
SWMU 7	USED OIL STORAGE AREA
SWMU 8	FORMER INCINERATOR

SOURCE: MODIFIED FROM NCI, 1981a

NOT TO SCALE

NATIONAL CASTINGS INCORPORATED
CICERO, ILLINOIS

FIGURE 2
FACILITY LAYOUT

ENVIRONMENTAL MANAGEMENT, INC.

TABLE 2

SOLID WASTES

Waste/EPA Waste Code[a]	Source	Solid Waste Management Unit[b]
Baghouse dust[c]/D006	Dust collection from arc furnace area	1
Baghouse dust/NA	Dust collection from arc furnace and molding production areas	2 and 3
Used sand/NA	Moldings for steel castings	4 and 6
Slag/NA	Production of steel castings	3, 5, and 6
Cooling Water/NA	Water cooling of steel castings	None
Waste firebrick/NA	Steel ladle and arc furnace maintenance	3
Used oil/NA	Motor vehicle and milling machine maintenance	7
Trash and rubbish/NA	General facility activities	8

Notes:

[a] Not applicable (NA) designates nonhazardous waste.
[b] "None" indicates that the waste is not managed on site.
[c] This wastestream is no longer generated.

Storage Areas (SWMU 1) from November 1980 to mid-1981. SWMU 1 is located indoors on a concrete floor and consists of two rectangular areas measuring 16 by 80 feet and 16 by 60 feet. A trench leading to the Publicly Owned Treatment Works (POTW) is located about 6 feet east of this unit. During the time D006 hazardous waste was stored at SWMU 1, the building housing SWMU 1 was only used to store inactive machinery and equipment. Because the building was not used for manufacturing, there was no water in the trench leading to the POTW while D006 hazardous waste was stored at SWMU 1. SWMU 1 underwent RCRA closure on March 7, 1988 (IEPA 1988).

Since 1988, the NCI facility has primarily produced low alloy castings; therefore, baghouse dust from Baghouse No. 1 contains a lower level of cadmium and is no longer considered a D006 hazardous waste. Currently, IEPA considers baghouse dust from Baghouse No. 1 to be a special waste because it is fine particulate dust. A second baghouse, Baghouse No. 2, is located on site near the moldings production area. Baghouse dust from Baghouse No. 2 was never considered a hazardous waste or special waste by EPA or IEPA. Dust is collected in plastic bags at the bottom of each baghouse at Baghouse Dust Collectors 1 and 2 (SWMU 2). When the bags are full, they are replaced, and the full bags are removed to the Baghouse Dust, Slag, and Waste Firebrick Storage Area (SWMU 3). SWMU 3 consists of two 20-cubic-yard roll-off boxes. One roll-off box is lined with plastic and is used to dispose of the plastic bags of dust collected from Baghouse Dust Collector 1 of SWMU 2. The second roll-off box is used to dispose of slag, waste firebrick, and dust-filled plastic bags from Baghouse Dust Collector 2 of SWMU 2. The NCI facility produces about 20 cubic yards of nonhazardous baghouse dust monthly. The roll-off boxes of SWMU 3 are located outdoors on concrete. This unit began operation in 1981. According to facility representatives, roll-off boxes used for disposal have been at this location since at least 1975, and probably before that time because the process layout has not been changed (PRC 1993b). Browning-Ferris Incorporated (BFI) of Melrose Park, Illinois (ILD 097 177 505), has been contracted to remove the contents of SWMU 3. BFI makes a pick-up at the facility 5 days a week.

The moldings used to form steel castings are made of a mixture of sand and a small amount of bentonite. After a casting of the molding is made, a portion of the sand can be reused to make additional moldings without further treatment. This sand is stored in two silos located on site. Additional moldings are formed by mixing the used sand with new sand. Excess used sand which cannot be reused is stored at the Used Sand Storage Area (SWMU 4). SWMU 4 consists of three

20-cubic-yard roll-off boxes located outdoors on concrete. The NCI facility produces about 1,060 cubic yards of nonhazardous used sand monthly. BFI of Melrose Park, Illinois, has been contracted to remove the contents of SWMU 4. BFI makes a pick-up at the facility 5 days a week.

After a molding is made, a casting is produced by pouring molten metal into the molding. The metal is melted in arc furnaces and poured into 10-ton capacity steel ladles lined with firebrick (PRC 1993b). Impurities in the metal float to the surface of the molten metal. Facility employees calculate the amount of impurities in the metal and pour this portion off into a 20-cubic-yard roll-off box filled with water. The water in the roll-off box evaporates and the impurities in the metal crystalize to form slag. This roll-off box is located at the Slag Accumulation Area (SWMU 5). SWMU 5 is located indoors on a concrete floor. When the roll-off box is filled, it is moved to SWMU 3 to be disposed of by BFI. The NCI facility generates about 28 cubic yards of slag monthly.

A portion of the castings produced by NCI need to be water cooled after formation. The facility has three quench tanks on site used in this process. The tanks are made of steel and located indoors. Each tank is about 30- by 20-feet and 15-feet deep. NCI discharges effluent from one of its three quench tanks each year to the POTW. Effluent from the quench tanks is sampled by the Metropolitan Sanitary District prior to discharge. If sample results show acceptable levels of hazardous constituents in the effluent, discharge to the POTW is allowed and monitored by the Metropolitan Sanitary District. The Metropolitan Sanitary District has never refused to allow the facility to discharge effluent to the POTW after sampling. Slag which accumulates in the bottom of each tank is removed once a year and disposed of at SWMU 3 along with slag generated from other facility processes.

The facility has five or six ladles used to pour molten metal into moldings (PRC 1993b). One of these ladles is rebricked with new firebrick about once every month. In addition, the arc furnaces used to melt the metal are also rebricked regularly. One furnace is rebricked about once every year (PRC 1993b). These processes generate about 75 cubic yards of waste firebrick each year. The waste firebrick is disposed of in the roll-off box of SWMU 3 with used sand and slag.

After a casting has been produced, bits of slag and sand cling to the casting. To remove the slag and sand, the facility uses one of four Pangborn shot cleaning machines. These machines bombard each

casting with small steel pellets. Each machine has an associated baghouse. The process of cleaning the castings generates a mixture of used sand, slag, and steel pellets. This mixture is separated and the baghouse dust collected at the Shot Cleaning Accumulation Areas (SWMU 6). SWMU 6 is located indoors on a concrete floor.

Initially, the mixture from the Pangborn shot cleaning machine is separated into fine and gross particles. The fine particles consist primarily of used sand which is collected in a 1-cubic-yard hopper. After the hopper is full, the fines are moved to SWMU 4 to be disposed of by BFI. The gross particles consist of slag and steel pellets which are collected in a hopper or in a pile near a sifting machine located near the Pangborn shot cleaning machine. The gross particles are separated into slag and steel pellets using a sifting machine. The slag is collected in a hopper and moved to SWMU 3 to be disposed of by BFI. The steel pellets are reused in the Pangborn shot cleaning machine. After extended use, the steel pellets wear and become so small they are sifted out of the gross particle mixture with the slag. These small steel pellets are then disposed of along with the slag by BFI. Dust from the baghouse is collected in a plastic bag in a 1-cubic-yard hopper. When the bag is full, it is replaced and the bag is disposed of at SWMU 3 along with slag (PRC 1993b).

The NCI facility also generates small amounts of used oil from motor vehicle and milling machine maintenance. The used oil is stored at the Used Oil Storage Area (SWMU 7). SWMU 7 is located indoors on concrete in a room measuring about 30 by 60 feet. According to facility representatives, the used oil is stored in 55-gallon, steel drums on an 80-gallon capacity spill control pallet designed to hold four drums. The NCI facility generates about 350 gallons of used oil each year. SET Environmental Company (ILD 981 957 236) in Wheeling, Illinois, has been contracted to remove the used oil off site for recycling on an as-needed basis. The portion of this room not used to store used oil is for product storage.

According to facility representatives, between 1968 and 1978, the facility used the Former Incinerator (SWMU 8) to dispose of trash and rubbish generated at the facility. At some time after its use was discontinued, the incinerator was removed. This unit was located outdoors on concrete. Facility representatives were unclear of this unit's exact location but were able to provide a probable location.

IEPA file review notes state the facility had an air permit (Application No. 03040601) to operate the incinerator from February 1968. The file review notes also state the permit allowed incineration of a maximum of 500 pounds per hour of nonhazardous dry rubbish such as paper, cardboard, and waste wood. Operation of the incinerator was discontinued prior to 1980 (IEPA date unknown).

2.4 HISTORY OF DOCUMENTED RELEASES

The NCI facility has no history of documented releases of hazardous wastes or hazardous constituents to groundwater, surface water, air, and on-site soils.

2.5 REGULATORY HISTORY

The NCI facility submitted a Notification of Hazardous Waste Activity to EPA on July 2, 1981 (NCI 1981a). NCI submitted a RCRA Part A permit application on July 10, 1981 with a process code of T04 (treatment other than tank, surface impoundment, or incinerator) for 3,178.3 tons of D006 (cadmium) wastes annually (NCI 1981b). The treatment process referred to in the facility's Part A permit application referred to the facility's mixing of D006 waste with nonhazardous waste resulting in a nonhazardous composite waste. NCI submitted a second RCRA Part A permit application on an unknown date in 1984 with process codes S01 (container storage) and T04 for 299.0 tons of D006 wastes annually (NCI 1984).

Beginning in 1981, NCI was regulated as a generator, treatment, storage, or disposal (TSD) facility of hazardous waste (NCI 1981a). On July 25, 1985, EPA withdrew the treatment process listed on NCI's Part A permit application because the facility was no longer mixing hazardous and nonhazardous waste (EPA 1985). On March 7, 1988, IEPA approved closure of NCI's Former Hazardous Waste Storage Areas (SWMU 1) and withdrew the facility's Part A permit application (IEPA 1988). The facility is currently a nonhandler of hazardous wastes.

On January 23, 1985 and December 12, 1986, IEPA conducted RCRA inspections of the NCI facility (IEPA 1985 and IEPA 1986). Violations discovered during these inspections primarily involved paperwork.

NCI discharges effluent from one of its three quench tanks each year to the POTW. Effluent from the quench tanks is sampled by the Metropolitan Sanitary District prior to discharge. If sample results show acceptable levels of hazardous constituents in the effluent, discharge to the POTW is allowed and monitored by the Metropolitan Sanitary District. The Metropolitan Sanitary District has never refused to allow the facility to discharge effluent to the POTW after sampling.

IEPA file review notes state the facility had an air permit (Application No. 03040601) to operate the incinerator in February 1968. The notes also state the permit allowed a maximum of 500 pounds per hour of nonhazardous dry rubbish such as paper, cardboard, and waste wood. Operation of the incinerator was discontinued prior to 1980 (IEPA date unknown).

Two underground storage tanks (UST) are located on site at the NCI facility. According to facility representatives, the USTs have capacities of 2,000 and 8,000 gallons and stored vegetable oil which was formerly used in making moldings. Documentation of sampling or integrity testing of the USTs has not been found. According to facility representatives, the USTs have not been used since before 1975 and the fill and exit lines have been capped.

Evidence of CERCLA activities conducted on site was not found.

2.6 ENVIRONMENTAL SETTING

This section describes the climate; flood plain and surface water; geology and soils; and groundwater in the vicinity of the facility.

2.6.1 Climate

The climate in Cook County is greatly influenced by Lake Michigan. The average daily high temperature in July is 72.2 °F and the average daily low temperature in January is 21.1 °F. The average annual temperature is 49.0 °F (USDA 1979).

The yearly mean precipitation for the county is 33.4 inches. Average snowfall is 38.3 inches, occurring between October and May (USDA 1979). Annual mean lake evaporation in the vicinity of

Cook County is approximately 29.7 inches (USDC 1968). The 1-year, maximum 24-hour rainfall in Cicero is approximately 2.4 inches (USDC 1961). Winds are typically from the north-northeast in winter and from the south in summer. Average wind speeds range from 8.1 to 12.1 miles per hour (USDC 1980).

2.6.2 Flood Plain and Surface Water

The area of the NCI facility is not included in the Federal Emergency Management Agency Flood Insurance Rate Map series. Because the facility is located about 3 miles north of the Chicago Sanitary and Ship Canal and about 3 miles east of the Des Plaines River it is unlikely that the facility area is subject to flooding. The facility is located about 4 miles west of Lake Michigan (USGS 1980). Surface water from the facility is discharged via storm sewers to the Metropolitan Sanitary District POTW.

The Chicago Ship and Sanitary Canal is used for industrial purposes. The Des Plaines River is used for recreational proposes. Lake Michigan is used for recreational purposes and as a drinking water supply for Cicero and the Chicago area.

2.6.3 Geology and Soils

Surface soils in the area are classified as uniform, relatively impermeable silty or clayey till at least 20 feet thick. The soils have no evidence of interbedded sand and gravel (Berg 1984).

Regional geology for the Cicero area is classified by ISGS. Surface soils are underlain by about 320 feet of Silurian Age dolomites. Beneath the dolomites are four members of Ordovician Age: Maquoketa shale-dolomite, Galena-Platteville dolomite, St. Peter sandstone, and Oneota dolomite. The St. Peter sandstone is the only significant water bearing unit of Ordovician Age, and is about 900 feet below ground surface (bgs) in the region. Below the Ordovician system is the Cambrian system. It consists of the following three units: Trempealeau dolomite, Franconia sandstone and dolomite, and Ironton-Galesville sandstone. Of the Cambrian units, only the Ironton-Galesville sandstone produces significant quantities of water (ISGS 1943).

2.6.4 Groundwater

The surface soils beneath the facility may contain groundwater; however, because the area is highly urbanized, it is unlikely that this water is usable. There are currently no operating groundwater wells in the area of the NCI facility (PRC 1993a).

A shallow bedrock zone in northeastern Illinois underlies the glacial sediments and is mainly comprised of Silurian dolomite. The upper boundary of this zone is the erosional surface of the bedrock, which is commonly obscured by glacial sediments, and the lower boundary is the upper Ordovician Maquoketa shale. Water produced from the dolomite is obtained from fractures and solution openings. The shallow bedrock aquifer zone receives some recharge locally from precipitation (Hughes 1966).

2.7 RECEPTORS

The facility occupies about 32 acres in an industrial area of Cicero, Cook County, Illinois. Cicero has a population of about 67,400 (Rand McNally 1992).

The facility is bordered on the north by the Cicero Water Department, on the east by Laramie Avenue, on the south by 16th Street, and on the west by Kropp Storage and a vacant General Electric Hot Point building. The facility is surrounded by a chain-link fence and a security guard is on duty 24 hours a day.

The nearest residential area is located one block east of the facility. Sensitive environments are not located within a 2-mile radius of the facility. The nearest surface water body, the Des Plaines River, is located about 3 miles north of the facility and is used for recreational purposes.

Groundwater is not used as a municipal water supply. There are currently no operating groundwater wells in the area of the NCI facility (PRC 1993a).

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the eight SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and PRC's observations. Figure 2 shows the SWMU locations.

SWMU 1	**Former Hazardous Waste Storage Areas**
Unit Description:	This unit is located indoors, on a concrete floor. This unit consists of two rectangular areas measuring 16 by 80 feet and 16 by 60 feet (NCI 1985).
Date of Startup:	This unit began operation in November 1980 (NCI 1985).
Date of Closure:	This unit was inactive after the mid-1981 and underwent RCRA closure on March 7, 1988 (IEPA 1988).
Wastes Managed:	This unit managed baghouse dust (D006) from the facility's electric arc furnace dust collectors. Baghouse dust (D006) was stored in this unit from November 1980 to mid-1981.
Release Controls:	This unit is located indoors on a concrete floor. During the time this unit was active, the building housing this unit was not used for manufacturing and only stored inactive machinery and equipment. A trench covered with steel plates that leads to the POTW is located about 6 feet east of this unit but contained no water while this unit was active (NCI 1985).
History of Documented Releases:	No releases from this unit have been documented.

Observations:	This unit was inactive at the time of the VSI. The concrete floor of this unit was not cracked. A trench covered with 18 inch square steel plates was located 6 feet east of this unit. There was no water in this trench at the time of the VSI. PRC noted no evidence of release (see Photographs No. 1 and 2).
SWMU 2	**Baghouse Dust Collectors 1 and 2**
Unit Description:	This unit consists of two baghouse dust collectors located indoors, in an area about 10- by 10-feet, on concrete. The dust collectors are made up of plastic bags attached to the bottom of two separate baghouses. Baghouse 1 is located in the arc furnace area. Baghouse 2 is located in the molding production area. The plastic bags located at the bottom of Baghouses 1 and 2 are contained within a hopper. When a plastic bag is full, it is removed and moved to SWMU 3 for disposal by BFI.
Date of Startup:	This unit began operation on an unknown date in 1975.
Date of Closure:	This unit is active.
Wastes Managed:	This unit manages nonhazardous baghouse dust. The NCI facility generates about 20 cubic yards of baghouse dust monthly.
Release Controls:	The baghouse dust collectors of this unit are located indoors on concrete floors.
History of Documented Releases:	No releases from this unit have been documented.

Observations:	This unit was in operation at the time of the VSI. The baghouse dust collectors were partially filled at both baghouses. PRC noted no evidence of release (see Photographs No. 3 and 4).
SWMU 3	**Baghouse Dust, Slag, and Waste Firebrick Storage Area**
Unit Description:	This unit is located outdoors on concrete and contains two 20-cubic-yard roll-off boxes in an area about 25- by 75 feet. One roll-off box is lined with plastic and is used to dispose of plastic bags of baghouse dust accumulated at Baghouse No. 1. A second roll-off box is used to dispose of slag, waste firebrick, and baghouse dust accumulated at the Slag Accumulation Area (SWMU 5) through general maintenance of steel pouring ladles, Baghouse No. 2, and the Pangborn shot cleaning machine.
Date of Startup:	This unit began operation in 1981.
Date of Closure:	This unit is active.
Wastes Managed:	This unit manages nonhazardous baghouse dust, used sand, slag, and waste firebrick. The NCI facility generates about 20 cubic yards of baghouse dust and about 28 cubic yards of slag monthly. The NCI facility generates about 75 cubic yards of waste firebrick each month. BFI has been contracted to dispose of the contents of this unit 5 days per week.
Release Controls:	This unit is located on concrete. The roll-off box used to collect baghouse dust is lined with plastic sheeting.
History of Documented Releases:	No releases from this unit have been documented.

Observations:	This unit was active at the time of the VSI. Two roll-off boxes were observed. One roll-off box was lined with plastic and contained plastic bags filled with baghouse dust. A second roll-off box was partially filled with slag and used sand. PRC noted no evidence of release (see Photographs No. 5 and 6).
SWMU 4	**Used Sand Storage Area**
Unit Description:	This unit consists of three 20-cubic-yard roll-off boxes located outdoors on concrete in an area about 25- by 75-feet. Used sand which cannot be reused to make moldings is disposed of by BFI.
Date of Startup:	This unit began operation on an unknown date before 1975.
Date of Closure:	This unit is active.
Wastes Managed:	This unit manages nonhazardous used sand generated during the production of moldings. The NCI facility generated about 1,060 cubic yards of sand monthly.
Release Controls:	This unit is located outdoors on a concrete.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	This unit was not observed because facility representatives did not inform PRC of this unit's existence until after the VSI.
SWMU 5	**Slag Accumulation Area**
Unit Description:	This unit consists of a 20-cubic-yard roll-off box located indoors on a concrete floor. The roll-off box contains water; molten slag is poured

into the water, which causes the slag to crystalize and the water to evaporate. When the roll-off box is filled, it is moved to SWMU 3 to be disposed of by BFI.

Date of Startup: This unit began operation on an unknown date before 1975.

Date of Closure: This unit is active.

Wastes Managed: This unit manages nonhazardous slag. The NCI facility generates about 28 cubic yards of slag monthly.

Release Controls: This unit is located indoors on a concrete floor and slag is accumulated in a steel roll-off box.

History of Documented Releases: No releases from this unit have been documented.

Observations: This unit was in operation at the time of the VSI. The roll-off box was partially filled with slag. PRC noted no evidence of release (see Photograph No. 7).

SWMU 6 **Shot Cleaning Accumulation Areas**

Unit Description: This unit collects used sand, slag, shot, and baghouse dust generated while cleaning steel castings using four Pangborn shot cleaning machine located throughout the facility. Each machine has an associated baghouse. Each machine and associated baghouse encompass an area about 75- by 75-feet. Newly molded steel castings are placed in the machine to remove any used molding sand or slag which remains on the casting. The sand or slag is removed by bombarding the casting with steel pellets.

This process generates a mixture of used sand, slag, and steel pellets. This mixture is separated initially into fine and gross particles. The fine particles, consisting primarily of used sand, are collected in a 1-cubic-yard hopper. After the hopper is full, the fine particles are moved to SWMU 4 to be disposed of by BFI. The gross particles consist of slag and steel pellets which are collected in a 1-cubic-yard hopper or in a pile near a sifting machine located about 50 feet south of the Pangborn Cleaning Machine. The gross particles are separated into slag and steel pellets by a sifting machine. The slag is collected in a hopper and moved to SWMU 3 to be disposed of by BFI. The steel pellets are reused in the Pangborn shot cleaning machine. After extended use, the steel pellets wear and become so small they are sifted out of the gross particle mixture with the slag. These small steel pellets are then disposed of along with the slag by BFI. Dust from the baghouse is collected in a plastic bag in a 1-cubic-yard hopper. When the bag is full, it is replaced and the bag is disposed of at SWMU 3 along with slag (PRC 1993b).

Date of Startup: This unit began operation in 1978.

Date of Closure: This unit is active.

Wastes Managed: This unit manages nonhazardous used sand, slag, steel pellets, and baghouse dust. The used sand and slag are moved to SWMUs 3 and 4, respectively, for disposal by BFI. The steel pellets are reused in the casting cleaning process. The baghouse dust is moved to SWMU 3 for disposal by BFI.

Release Controls: This unit is located indoors on a concrete floor.

History of Documented Releases: No releases from this unit have been documented.

Observations:	This unit was active at the time of the VSI. The fine and gross particles were collected in separate 1-cubic-yard hoppers (see Photographs No. 8 and 9). The gross particles were in a pile on the floor located near the sifting machine (see Photograph No. 10).
SWMU 7	**Used Oil Storage Area**
Unit Description:	This unit is located indoors in a room measuring about 30 by 60 feet. The floor of this unit is concrete. According to facility representatives, when used oil is stored in this location in steel 55-gallon drums, the drums are placed in spill control pallets. A floor drain is located about 6 feet southeast of this unit. The portion of this unit not used to store used oil is used for product storage.
Date of Startup:	This unit began operation on an unknown date before 1975.
Date of Closure:	This unit is active.
Wastes Managed:	This unit manages nonhazardous used oil generated by motor vehicle and milling machine maintenance. NCI generates about 350 gallons of used oil each year. SET Environmental Company in Wheeling, Illinois, is contracted to remove the used oil off site for recycling.
Release Controls:	This unit is located indoors on a concrete floor. According to facility representatives when the 55-gallon, steel drums used to store the used oil are filled they are stored at this unit on an 80-gallon capacity spill control pallet designed to hold four drums.
History of Documented Releases:	No releases from this unit have been documented.

Observations:	At the time of the VSI, this unit contained four empty 55-gallon, steel drums and various products used by the facility which were stored on pallets. PRC noted no evidence of release (see Photograph No. 11).
SWMU 8	**Former Incinerator**
Unit Description:	This unit was located outdoors on concrete. Facility representatives were unclear of this unit's exact location, but were able to provide a probable location. IEPA's file review notes state the facility had an air permit (Application No. 03040601) to operate the incinerator from February 1968. The file review notes also state the permit allowed incineration of a maximum of 500 pounds per hour of nonhazardous dry rubbish such as paper, cardboard, and waste wood. Operation of the incinerator was discontinued around 1978 (IEPA date unknown).
Date of Startup:	According to facility representatives, this unit began operation in about 1968.
Date of Closure:	According to facility representatives, this unit ceased operations in about 1978 and was removed sometime thereafter.
Wastes Managed:	According to facility representatives, this unit was used to incinerate nonhazardous trash and rubbish generated by the facility.
Release Controls:	This unit was located on concrete. Information on other release controls for this unit was not discovered during the PA/VSI.
History of Documented Releases:	No releases from this unit have been documented.
Observations:	This unit was inactive at the time of the VSI. The probable location of this unit was outdoors on concrete with a 4-inch concrete curb

surrounding the area. PRC noted no evidence of release (see Photograph No. 12).

4.0 AREAS OF CONCERN

PRC identified no AOCs during the PA/VSI.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified eight SWMUs and no AOCs at the NCI facility. Background information on the facility's location; operations; waste generation and management; history of documented releases; regulatory history; environmental setting; and receptors is presented in Section 2.0. SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, history of documented releases, and observed condition, is presented in Section 3.0. AOCs are discussed in Section 4.0. Following are PRC's conclusions and recommendations for each SWMU. Table 3, located at the end of this section, summarizes the SWMUs at the facility and the recommended further actions.

SWMU 1 **Former Hazardous Waste Storage Areas**

Conclusions: This unit managed baghouse dust (D006). No releases from this unit have been documented. Because this unit is inactive, was located indoors on a concrete floor, and underwent RCRA closure in 1988, there is a low potential for release to groundwater, surface water, air, and on-site soils.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 2 **Baghouse Dust Collectors 1 and 2**

Conclusions: This unit manages nonhazardous baghouse dust from the electric arc furnace and molding production areas of the facility. No releases from this unit have been documented. Because this unit is located indoors on a concrete floor, there is a low potential for release to groundwater, surface water, air, and on-site soils.

Recommendations: PRC recommends no further action for this SWMU at this time.

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RIN # 595-98
INITIALS MJ

ENFORCEMENT
CONFIDENTIAL

SWMU 3 **Baghouse Dust, Slag, and Waste Firebrick Storage Area**

Conclusions: This unit manages nonhazardous baghouse dust, used sand, slag, and waste firebrick. No releases from this unit have been documented. Because this unit manages only nonhazardous wastes and is located on concrete, there is a low potential for release to groundwater, surface water, air, and on-site soils.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 4 **Used Sand Storage Area**

Conclusions: This unit manages nonhazardous used sand. No releases from this unit have been documented. Because this unit manages only nonhazardous wastes and is located on concrete, there is a low potential for release to groundwater, surface water, air, and on-site soils.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 5 **Slag Accumulation Area**

Conclusions: This unit manages nonhazardous slag. No releases from this unit have been documented. Because this unit is located indoors on a concrete floor, there is a low potential for release to groundwater, surface water, air, and on-site soils.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 6 **Shot Cleaning Accumulation Areas**

Conclusions: This unit manages nonhazardous used sand, slag, and steel pellets. No releases from this unit have been documented. Because this unit is located

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DATE 12-12-97
RIN # 595-98
INITIALS MV

ENFORCEMENT
CONFIDENTIAL

indoors on a concrete floor, there is a low potential for release to groundwater, surface water, air, and on-site soils.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 7 **Used Oil Storage Area**

Conclusions: This unit manages nonhazardous used oil. No releases from this unit have been documented. Because this unit is indoors on a concrete floor and according to facility representatives the individual drums of this unit are stored on spill-control pallets, there is a low potential for release to groundwater, surface water, air, and on-site soils.

Recommendations: PRC recommends no further action for this SWMU at this time.

SWMU 8 **Former Incinerator**

Conclusions: This unit managed nonhazardous trash and rubbish generated by facility activities and operated under an air permit. Because this unit no longer exists, there is a low potential for release to groundwater, surface water, air, and on-site soils.

Recommendations: PRC recommends no further action for this SWMU at this time.

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INITIALS MV

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TABLE 3

SWMU SUMMARY

SWMU	Dates of Operation	Evidence of Release	Recommended Further Action
1. Former Hazardous Waste Storage Areas	November 1980 to mid-1981	None	None
2. Baghouse Dust Collectors 1 and 2	An unknown date before 1975 to present	None	None
3. Baghouse Dust, Slag, and Waste Firebrick Storage Area	1981 to present	None	None
4. Used Sand Storage Area	An unknown date before 1975 to present	None	None
5. Slag Accumulation Area	An unknown date before 1975 to present	None	None
6. Shot Cleaning Accumulation Areas	1978 to present	None	None
7. Used Oil Storage Area	An unknown date before 1978 to present	None	None
8. Former Incinerator	1968 to 1978	None	None

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APPENDIX A

VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS

(Seven Pages)

VISUAL SITE INSPECTION SUMMARY

National Castings Incorporated (NCI)
1400 South Laramie Avenue
Cicero, Illinois 60650
ILD 049 015 134

Date:	July 8, 1993
Primary Facility Representative:	Jerry Farmer, Safety Manager, NCI
Representative Telephone No.:	(708) 344-0675
Additional Facility Representatives:	John Grodoski, Director of Human Resources, NCI Paul Zearfoss, Jr., Plant Manager, NCI Rebecca Tutto, Plant/Project Engineer, NCI
Inspection Team:	Sandy Anagnostopoulos, PRC Environmental Management, Inc. (PRC) Gabriel Norkis, PRC
Photographer:	Gabriel Norkis, PRC
Weather Conditions:	Partly cloudy, approximately 75 °F.
Summary of Activities:	The visual site inspection (VSI) began at 9:30 a.m. with an introductory meeting. The inspection team explained the purpose of the VSI and the agenda for the visit. Facility representatives then discussed the facility's past and current operations, solid wastes generated, and release history. Facility representatives provided the inspection team with copies of requested documents. The VSI tour began at 11:00 a.m. Each solid waste management unit (SWMU) was observed and photographed. Twelve of the 20 inspection photographs taken are included in this appendix. The photographs have been renumbered; thus, their numbers differ from the photograph numbers in the VSI field notes, which are included as Appendix B. The tour concluded at 1:45 p.m., after which the inspection team held an exit meeting with facility representatives. The VSI was completed and the inspection team left the facility at 1:55 p.m.

Photograph No. 1 — Location: SWMU 1
Orientation: East — Date: July 8, 1993
Description: This photograph shows the Former Hazardous Waste Storage Areas. The steel drum in the foreground is used for trash collection.

Photograph No. 2 — Location: SWMU 1
Orientation: Not applicable — Date: July 8, 1993
Description: This photograph shows the floor of the Former Hazardous Waste Storage Areas.

Photograph No. 3 Location: SWMU 2
Orientation: North Date: July 8, 1993
Description: This photograph shows Baghouse Dust Collector 1.

Photograph No. 4 Location: SWMU 2
Orientation: West Date: July 8, 1993
Description: This photograph shows Baghouse Dust Collector 2.

Photograph No. 5 Location: SWMU 3
Orientation: Northeast Date: July 8, 1993
Description: This photograph shows a plastic lined roll-off box used to collect baghouse dust at the Baghouse Dust, Slag, and Waste Firebrick Storage Area.

Photograph No. 6 Location: SWMU 3
Orientation: Southeast Date: July 8, 1993
Description: This photograph shows a roll-off box used to collect slag at the Baghouse Dust, Slag, and Waste Firebrick Storage Area.

Photograph No. 7 Location: SWMU 5
Orientation: West Date: July 8, 1993
Description: This photograph shows the Slag Accumulation Area in the foreground. Roll-off boxes containing scrap metal to be used for castings are shown in the background.

Photograph No. 8 Location: SWMU 6
Orientation: Northwest Date: July 8, 1993
Description: This photograph shows the hopper used to collect fine particles at the Shot Cleaning Accumulation Areas.

Photograph No. 9 Location: SWMU 6
Orientation: Southwest Date: July 8, 1993
Description: This photograph shows the hopper used to collect gross particles at the Shot Cleaning Accumulation Areas.

Photograph No. 10 Location: SWMU 6
Orientation: South Date: July 8, 1993
Description: This photograph shows a pile of gross particles which will be separated into slag and steel pellets at the Shot Cleaning Accumulation Areas.

Photograph No. 11 Location: SWMU 7
Orientation: South Date: July 8, 1993
Description: This photograph shows four empty steel drums in the Used Oil Storage Area.

Photograph No. 12 Location: SWMU 8
Orientation: West Date: July 8, 1993
Description: This photograph shows the probable location of the Former Incinerator.

APPENDIX B

VISUAL SITE INSPECTION FIELD NOTES

(11 Sheets)

(98)

JULY 8, 1993 THURSDAY

NATIONAL CASTINGS INC.

CICERO, IL

09:30 AM ON SITE

SANDY ANAGNOSTOPOULOS (PRC)

GABBY NORKIS (PRC)

JERRY FARMER (NCI)

JOHN GRODOSKI "

PAUL ZEARFOSS "

REBECCA TUTTO "

WALTER ANDERSON "

Acreage - 32

Buildings - 724,000 ft²

facility fenced

24 hour guard (2)

7-Days a week

7/8/9300

7/8/93 NCI (99)

460 employees

2 shifts prod + finishing

maintenance 3 shifts

6½ days

employees 24 hrs.

Monitored by sanitary system.

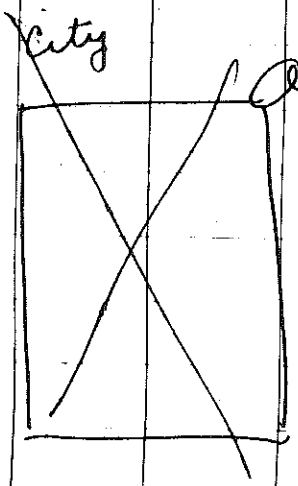
facility - some since 1890

1966-1985 M.R.C. National Casting Division on this prop.

7/85 privately held to National Castings INC

7/8/93 AM

Prior to '66
National Malleable
& Steel Castings
Company.



Cistern - cooling
water for air
compressor system
(circulating) back
up for fire system

sprinkler system
through 90% of
buildings.

Waste sand from
molds, slag, &
spent cores go
to roll-off boxes
goes to Mallard Lake
~~Since at least '84~~
since permit '90
since '84 BFI
has handled
in (1) location
since ~ 1966 either
inside or just outside
to east of their bounds
Probably there due
to processes in those

(10)

location.

Baghouse (1) near furnaces - had cadmium in it.

Baghouse (2) near finishing area shot blast & cleaning of molds.

If hoppers (1) are full waste foundry sand is piled near doorway until an empty hoppers is available.

Piled maybe 1 or 2 times/wk.

slag collected in rep box in building & eventually sent off w/ foundry to BFI who comes 1 day per week.

Baghouse dust sent off as non-haz since 1990 (checking for previous permit)

Change to non-haz due to change in scrap used for

(10)

1/8/93 NCI

castings - went to low alloy scrap beginning in 1988

~1988 went from high alloy castings Prior to 1988 military + commercial + industrial castings

~1988 you started to produce primarily castings (low alloy) for railroad industry.

Incinerator '68 - '78 for trash facility reps not sure of location

1/8/93 NCI (10a)

H_2O from city

Don't know of releases to ~~it~~ needing a report to EPA

motor + milling machine

7 drums/yr of used oil let Environmet in Wheeling called in

NCI is a wholey owned subsidiary of NACO

1100 Tour begins (everyone)

P(1) XA on map shot blast baghouse 2 yd^3 containes when full goes to roll-off box + BKI

1/8/93

(106) 1/8/93 NWI

Bangbox Shot cleaning machine castings are cleaned using steel pellets to remove sand from castings. There's a fine and gross (slag) collection from machine

P(2) gross (slag)
P(3) fines

slag + pellets are then separated & pellets reused slag goes off to

1/8/93 NWI

(107)

BFI

P(4) sifting machine pellets in one container slag in other. slag and pellets in pile near machine

No floordrains in building?

Burn-off is done using an acet torch to remove metal edges or castings excess metal remelted

1/8/93 ala

(108) 7/8/93 NCI

4 gas furnaces
homogenize metal
call heat treating
1600°F furnaces
run 24 hrs/6 days

4 shot blast machines

Machine castings
using 3 machines (mill)
(P5) cooled by oil
oil is drummed
oil 1 or 2/yr goes
to Set Env. w/
motor oil ~ 7 dr/yr

7/8/93

7/8/93 NCI (109)

Fac. reps. don't
know anything
about trench to
POTW since '75 (Terry)

(P6) old storage area
indoors concrete
floors currently
not used a
few pieces of
misc. eq.
(P7) Floor
NW CRI Casting
Reclamation Inc.
of NACO. only
chip, grind, weld
exclusively railroad
(no casting)

7/8/93

(110)

1/8/93 - NCI

NCI uses all scrap from CRI

No molding here

2 sand silos + mixer depending on mix of molding sand

may be reused or go to BFI if mix has excess in it.

Sand moved by conveyors in basement

Slag floats on top of ladle (metal poured from bot)

(111)

7/8/93 NCI

slag poured into hopper w/ H_2O

slag crystalizes and is removed to another hopper + BFI rd

4 electric arc furnaces (3 currently used) start at 6:00pm cause of electric costs

2800°F

7/8/93

(12) 7/8/93 NCL

ladles lined w/ fire brick (~10) every ~6 months brick goes to BFI

(9) (8) AA Scrap Metal + slag

(10) Baghouse (1) → hopper

(11) (9) AA Cooling water non-contact, 40'x40' concrete has not been used since at least '75

(12) (10) AA Baghouse (1) dust collected in plastic bag takes about 2 or 3 days

7/8/93 AA

7/8/93 NCL (13)

moved to hopper kept outside takes ~2wks to fill hopper - BFI called in when full

~ 9 months → 1yr change bags in hoppers of baghouse (1) ~1000 cloth bags in 6 hoppers

(13) (11) AA slag hopper

(14) (12) AA dust "

→ also sweepings from arc furnace area floor

7/9/93 AA

(114)

7/8/93 NCI

Jaccone Heat Treat
for smaller castings
< 500 lbs (others ↑ 2000 lb)

3 quench tanks
30' x 20' x 15'
(15) (13) (12) steel construction
(16) (14) & closed,
MSD (Metropolitan
Sanitary District)

1 ce/yr call MSD
they sample and
~~allow 40,000 gallon~~
1 tank is dumped
per year MSD
supervises pumping
to sewer.

(118)

7/8/93 NCI

Each tank is
cleaned out once
a year (drain tank
into empty one)
and slag to BFI
(molding sand)
but only one
tank to sewer
per year.

Jac. H.T. + Finish
ship + offices
built in mid '70s
by M.R.

7/8/93

(116) 7/8/93 NCI

USTs - 8,000 + 2,000 gall tanks held veg oil - was used in core making (17) (18) not since at least '75

~ 4" x 4" concrete curb around USTs

(18) 4 empty 55 gall drums for waste oil

~ 30' x 60' concrete floor - no evidence of spill.

floor drain about 6" from empty drums

7/8/93 ale

7/8/93 NCI (117)

spill control pallet rest used for storage.

when drums are filled sit in a plastic container that can hold 4 drums w/ a capacity of ~ 80 gallons

(16) (19) ea cooling pond (cistern)

~ 30 yds x 30' ea

spray system concrete

~ 10'-15' deep

w/ concrete top & H_2O pours into

7/8/93

(18) 7/8/93 NCI

Fabrication - presses for repair molding plastic

(20) Former incinerator 900 tons/month of scrap metal purchased

1345 Back in conference room for closing meeting

1355 PRC off-site

7/8/93 ad

RECEIVED JUN 15 1993
WMD RCRA
RECORD CENTER Compliance

LISON & GRIFFIN
SUITE 2015
200 WEST ADAMS STREET
CHICAGO, ILLINOIS 60606
TELEPHONE (312) 558-4550

JOHN M. LISON
WILLIAM J. GRIFFIN
MARK F. BAGGIO
ALAN L. GARROW

MARK E. GLENNON
COUNSEL
ROBERT C. GEBERT
COUNSEL
TELECOPIER (312) 558-4561

June 3, 1993

Mr. Kevin M. Pierard
Chief - OH/MN Technical Enforcement Section
U.S. Environmental Protection Agency
Region 5
77 W. Jackson Blvd.
Chicago, IL 60604-3590

RECEIVED
JUN 7 1993
OFFICE OF RCRA
WASTE MANAGEMENT D
EPA REGION

RE: Visual Site Inspection
National Castings Inc
Cicero, Illinois
ILD 049015134

Dear Mr. Pierard:

We have received a copy of your letter dated June 2, 1993 addressed to Mr. Jerry Farmer of National Castings Inc. As mentioned in the letter the EPA is reviewing NCI's Cicero facility for the purpose of hazardous waste releases subject to RCRA. I would like to take this opportunity to provide you with information which may be helpful to you in addressing the EPA's hazardous waste concerns at the facility.

Briefly, National Castings Inc. ("NCI") recently acquired the Cicero plant in July, 1985 from Midland-Ross Corporation ("MRC"). Prior to NCI's purchase MRC began closure of its hazardous waste storage container area. At one point in the early 1980's, MRC's Cicero plant was granted interim status to allow storage of waste for a period of several months while awaiting shipment to authorized disposal sites. On April 30, 1985, MRC's permit was due and since at that time (and presently) the facility was neither functioning as a hazardous waste treatment nor storage facility, MRC notified Region V and the Illinois EPA of its intent to "close" its container storage area and requested revocation of Part "A" of the permit. As described in the IEPA letter dated March 7, 1988, enclosed for your review, the closure was successfully completed. This letter was issued following EPA inspection and completion of the closure activity in compliance with MRC's closure plan. NCI's facility is not a treatment, storage or disposal facility for hazardous waste.

We hope this addresses your possible concerns of hazardous waste. Please feel free to contact me if you have any questions.

Very truly yours,

Mark F. Baggio

MFB/tml

Enclosure

Illinois Environmental Protection Agency · 2200 Churchill Road, Springfield, IL 62706

217/782-6762

Refer to: 0310510007--Cook County
National Castings (formerly known as Midland Ross Corp.)
Closure Plan Approved: August 5, 1986 Log #C-95-MI
ILD049015134
RCRA-Closure

March 7, 1988

APR 1 8 1988

LAW DEPT.

Midland Ross Corporation
Attn: David J. Greenham
20600 Chagrin Boulevard
Cleveland, OH 44122

Dear Mr. Greenham:

The subject hazardous waste management facility was inspected by a representative of this Agency on November 17, 1986. The inspection revealed that the closure activity was completed in accordance with the approved closure plan dated August 5, 1986.

Certification that the National Castings (formerly known as Midland Ross Corporation) container storage area in Cicero, Illinois had been closed in accordance with the approved closure plan by the owner/operator, represented by Mr. Frank N. Fittipaldi, Senior Vice President, Midland Ross Corp., and an independent registered professional engineer, Mr. John Polich, P.E., of Illinois was received at this Agency August 27, 1986.

The Agency has determined that the closure of the National Castings container sotrage area in Cicero, Illinois has apparently met the requirements of Interim Status Standards, 35 Ill. Admin. Code, Part 725 (40 CFR, Part 265). Thus, as no other interim status hazardous waste management units exist at this facility, the Agency is also withdrawing Part A of the RCRA permit application for the National Castings (formerly known as Midland Ross Corp.) facility in Cicero, Illinois.

This facility must continue to meet the requirements for generators of hazardous waste in 35 IAC 722.

If you have any questions, please contact Jim Moore at 217/782-9875.

Very truly yours,

Lawrence W. Eastep, P.E., Manager
Permit Section
Division of Land Pollution Control

LWE:JKM:tf/0424j,97-98

cc: Maywood Region
USEPA Region V, Mary Murphy
USEPA Region V, Art Kawatachi
John Polich, P.E.
Division File
Financial Assurance Unit
Compliance Monitoring

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

HRE-8J

RECEIVED
WMD RCRA
RECORD CENTER
JUN 16 1993
Comp

June 2, 1993

Mr. Jerry Farmer
National Castings Incorporated
110 North 25th Avenue
Melrose Park, Illinois 60160

Re: Visual Site Inspection
National Castings Incorporated
Cicero, Illinois
ILD 049 015 134

Dear Mr. Farmer:

The United States Environmental Protection Agency (U.S. EPA) Region V will conduct a Preliminary Assessment and a Visual Site Inspection (PA/VSI) at the referenced facility. This inspection is conducted pursuant to the Resource Conservation and Recovery Act, as amended (RCRA) Section 3007 and the Comprehensive Environmental Response, Compensation, and Liability Act, as amended (CERCLA) Section 104(e). The referenced facility has generated, treated, stored, or disposed of hazardous waste subject to RCRA. The PA/VSI requires identification and systematic review of all solid waste streams at the facility. The objective of the PA/VSI is to determine whether or not releases of hazardous wastes or hazardous constituents have occurred or are occurring at the facility which may require further investigation. This analysis will also provide information to establish priorities for addressing any confirmed releases.

The visual site inspection of your facility is to verify the location of all solid waste management units (SWMUs) and areas of concern (AOCs) and to make a cursory determination of their condition by visual observation. The definitions of SWMUs and AOCs are included in Attachment I. The VSI supplements and updates data gathered during a preliminary file review. During this site inspection, no samples will be taken. A sampling visit to ascertain if releases of hazardous waste or constituents have occurred may be required at a later date.

Assistance of some of your personnel may be required in reviewing solid waste flow(s) or previous disposal practices. The site inspection is to provide a technical understanding of the present and past waste flows and handling, treatment, storage, and disposal practices. Photographs of the facility are necessary to document the condition of the units at the facility and the waste management practices used.

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The VSI will be scheduled following receipt of this letter. The inspection team will consist of Sandy Anagnostopoulos and another employee of PRC Environmental Management, Inc., a contractor for the U.S. EPA. Representatives of the Illinois Environmental Protection Agency (IEPA) may also be present. Your cooperation in admitting and assisting them while on site is appreciated.

The U.S. EPA recommends that personnel who are familiar with present and past manufacturing and waste management activities be available during the VSI. Access to any relevant maps, diagrams, hydrogeologic reports, environmental assessment reports, sampling data sheets, environmental permits (air, NPDES), manifests and/or correspondence is also necessary, as such information is needed to complete the PA/VSI.

If you have any questions, please contact me at (312) 886-4448 or Francene Harris at (312) 886-2884. A copy of the Preliminary Assessment/Visual Site Inspection Report, excluding the conclusions and Executive Summary portion will be sent when the report is available.

Sincerely yours,

Francene D. Harris for

Kevin M. Pierard, Chief
OH/MN Technical Enforcement Section

Enclosure

cc: Anna Van Orden - IEPA, Maywood
Larry Eastep - IEPA, Springfield

CORRECTIVE ACTION STABILIZATION QUESTIONNAIRE

Completed by: Cathy Collins
Date: March 18, 1994

RECEIVED
WMD RECORD CENTER
JAN 31 1995

Background Facility Information

Facility Name: National Castings Incorporated
EPA Identification No.: ILD 049 015 134
Location (City, State): Cicero, Illinois
Facility Priority Rank: Low

1. Is this checklist being completed for one solid waste management unit (SWMU), several SWMUs, or the entire facility? Explain.

Entire facility consisting of eight SWMUs

Status of Corrective Action Activities at the Facility

2. What is the current status of HSWA corrective action activities at the facility?

( ) No corrective action activities initiated (Go to 5)
(X) RCRA Facility Assessment (RFA) or equivalent completed
( ) RCRA Facility Investigation (RFI) underway
( ) RFI completed
( ) Corrective Measures Study (CMS) completed
( ) Corrective Measures Implementation (CMI) begun or completed
( ) Interim Measures begun or completed

3. If corrective action activities have been initiated, are they being carried out under a permit or an enforcement order?

( ) Operating permit
( ) Post-closure permit
( ) Enforcement order
(X) Other (Explain)

No corrective action has been initiated.

4. Have interim measures, if required or completed [see Question 2], been successful in preventing the further spread of contamination at the facility?

( ) Yes
( ) No
( ) Uncertain; still underway
(X) Not required

Additional explanatory notes:

There is no history or suspicion of release to environmental media at this facility.

Facility Releases and Exposure Concerns

5. To what media have contaminant releases from the facility occurred or been suspected of occurring?

(X) None
( ) Groundwater
( ) Surface water
( ) Air
( ) Soils

6. Are contaminant releases migrating off-site?

( ) Yes; Indicate media, contaminant concentrations, and level of certainty.

Groundwater:
Surface water:
Air:
Soils:

(X) No
( ) Uncertain

7a. Are humans currently being exposed to contaminants released from the facility?

( ) Yes (Go to 8a)
(X) No
( ) Uncertain

Additional explanatory notes:

There is no history or suspicion of release to environmental media at this facility.

7b. Is there a potential for human exposure to the contaminants released from the facility over the next 5 to 10 years?

( ) Yes
(X) No
( ) Uncertain

Additional explanatory notes:

There is no history or suspicion of release to environmental media at this facility.

8a. Are environmental receptors currently being exposed to contaminants released from the facility?

( ) Yes (Go to 9)
(X) No
( ) Uncertain

Additional explanatory notes:

There is no history or suspicion of release to environmental media at this facility.

8b. Is there a potential that environmental receptors could be exposed to the contaminants released from the facility over the next 5 to 10 years?

( ) Yes
(X) No
( ) Uncertain

Additional explanatory notes:

There is no history or suspicion of release to environmental media at this facility.

Anticipated Final Corrective Measures

9. If already identified or planned, would final corrective measures be able to be implemented in time to adequately address any existing or short-term threat to human health and the environment?

( ) Yes
(X) No
( ) Uncertain

Additional explanatory notes:

There is no history or suspicion of release to environmental media at this facility.

10. Could a stabilization initiative at this facility reduce the present or near-term (e.g., less than two years) risks to human health and the environment?

( ) Yes
(X) No
( ) Uncertain

Additional explanatory notes:

There is no history or suspicion of release to environmental media at this facility.

11. If a stabilization activity were not begun, would the threat to human health and the environment significantly increase before final corrective measures could be implemented?

( ) Yes
(X) No
( ) Uncertain

Additional explanatory notes:

There is no history or suspicion of release to environmental media at this facility.

Technical Ability to Implement Stabilization Activities

12. In what phase does the contaminant exist under ambient site conditions? Check all that apply.

( ) Solid
( ) Light non-aqueous phase liquids (LNAPLs)
( ) Dense non-aqueous phase liquids (DNAPLs)
( ) Dissolved in groundwater or surface water
( ) Gaseous
(X) Other None

13. Which of the following major chemical groupings are of concern at the facility?

( ) Volatile organic compounds (VOCs) and/or semi-volatiles
( ) Polynuclear aromatics (PAHs)
( ) Pesticides
( ) Polychlorinated biphenyls (PCBs) and/or dioxins
( ) Other organics
(X) Inorganics and metals
( ) Explosives
( ) Other _____

14. Are appropriate stabilization technologies available to prevent the further spread of contamination, based on contaminant characteristics and the facility's environmental setting? [See Attachment A for a listing of potential stabilization technologies.]

( ) Yes; Indicate possible course of action.

(X) No; Indicate why stabilization technologies are not appropriate; then go to Question 18.

There is no history or suspicion of release to environmental media at this facility.

15. Has the RFI, or another environmental investigation, provided the site characterization and waste release data needed to design and implement a stabilization activity?

( ) Yes
( ) No

If No, can these data be obtained faster than the data needed to implement the final corrective measures?

( ) Yes
( ) No

Timing and Other Procedural Issues Associated with Stabilization

16. Can stabilization activities be implemented more quickly than the final corrective measures?

( ) Yes
( ) No
( ) Uncertain

Additional explanatory notes:

17. Can stabilization activities be incorporated into the final corrective measures at some point in the future?

( ) Yes
( ) No
( ) Uncertain

Additional explanatory notes:

ENFORCEMENT
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Conclusion

RELEASED
DATE 12-12-97
RIN # 594-98
INITIALS MV

18. Is this facility an appropriate candidate for stabilization activities?

( ) Yes
( ) No, not feasible
(X) No, not required
( ) Further investigation necessary

Explain final decision, using additional sheets if necessary.

The following information was obtained from a 1993 preliminary assessment/visual site inspection (PA/VSI) prepared by PRC Environmental Management, Inc. (PRC).

There is no history or suspicion of release to environmental media at this facility.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

HRE-8J

December 9, 1993

RECEIVED DEC 17 1993
WMD RCRA
RECORD CENTER

Mr. Jerry Farmer
National Castings Incorporated
110 North 25th Avenue
Melrose Park, IL 60160

Re: Visual Site Inspection
National Castings Incorporated
Cicero, IL
ILD 049 015 134

Dear Mr. Farmer:

The U.S. Environmental Protection Agency is enclosing a copy of the final Preliminary Assessment/Visual Site Inspection (PA/VSI) report for the referenced facility. The executive summary and conclusions and recommendations sections have been withheld as Enforcement Confidential.

If you have any questions, please call Francene Harris at (312) 886-2884.

Sincerely yours,

Kevin M. Pierard, Chief
Minnesota/Ohio Technical Enforcement Section
RCRA Enforcement Branch

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